

POLYMERS				
PE	PP	PVC	PS	BR
HDPE	Homo Polymer	Emulsion	GPPS	SBR
LDPE	Co Polymer	Suspension	HIPS	PBR
LLDPE	Pipe		EPS	

POLYETHYLEN (PE)	
<b>HDPE</b>	1) <b>Film</b> : Food Packing , Wrapping Films , Blown Films with Paper like quality
	2) <b>Pipe</b> : Waste and Sewer pipes , Gas pipes , Water pipes , Pressure pipes , Agricultural Pipe
	3) <b>Blow molding</b> : Blow Molding Bottles , Extrusion Blow Molding , Containers , Fuel Tanks, Non-fuel Reservoirs , IBC , Jerrycan , Open-Top Drum , Packing of Pharmaceutical
	4) <b>Caps &amp; Closure</b> : Beverage Caps , Hot filled and Carbonated Soft Drink , Beverage Bottles Caps of Sparkling Water
	5) <b>Yarn</b> : Rope , Trampoline , Fishing net , Woven Sack
<b>LDPE</b>	General Purpose Bags , Carrier Bags , Shrink Films , Heavy Duty Carrier Bags , Bags & Pouches , Agricultural Bags , Construction Films , Food Packing o Cast Film
<b>LLDPE</b>	Heavy Duty Plastic Bags , Freezer Bags , Hand Bags , Packing , Agriculture Bags

<b>POLYPROPYLENE (PP)</b>	
	<b>Application</b>
<b>PP Homopolymer</b>	<ol style="list-style-type: none"> <li>1. Heavy Duty Plastic Jumbo Bags</li> <li>2. Furniture</li> <li>3. Caps</li> <li>4. Closures</li> <li>5. Toys</li> </ol>
<b>PP Co Polymer</b>	<ol style="list-style-type: none"> <li>1. Lamination</li> <li>2. Packaging of stationary</li> <li>3. Packaging of Food</li> <li>4. Filters</li> <li>5. Containers</li> </ol>
<b>PP Pipe</b>	<ol style="list-style-type: none"> <li>1. Service pipes o</li> <li>2. Hot &amp; Cold Water Supply</li> <li>3. Industrial Water Conversance</li> </ol>

<b>POLYVINYL CHLORIDE (PVC)</b>	
	<b>Application</b>
<b>Emulsion</b>	<ol style="list-style-type: none"> <li>1. Widows profiles</li> <li>2. Electric wires</li> <li>3. Cable Industry</li> <li>4. Injection Molding</li> <li>5. Extrusion of flexible hoses</li> </ol>
<b>Suspention</b>	<ol style="list-style-type: none"> <li>1. Widows profiles</li> <li>2. Electric wires</li> <li>3. Cable Industry</li> <li>4. Injection Molding</li> <li>5. Extrusion of flexible hoses</li> </ol>

<b>POLYSTYRNE (PS)</b>	
	<b>Application</b>
<b>GPPS</b>	<ol style="list-style-type: none"> <li>1. Shower cabinet</li> <li>2. disposable cups</li> <li>3. Food containers</li> <li>4. Pen bodies</li> <li>5. plastic bangles</li> <li>6. stationary products</li> </ol>
<b>HIPS</b>	Shower cabinet , disposable cups , Food containers Pen bodies , Yoghurt pots , refrigerator linings , vending cups , bathroom cabinets , toilet seats and tanks, closures, instrument control knobs
<b>EPS</b>	<ol style="list-style-type: none"> <li>1. Rigid insulation boards</li> <li>2. Panel applications</li> <li>3. Low density housing and construction blocks</li> <li>4. Civil Engineering</li> </ol>

<b>POLYBUTADIENE (BR)</b>	
	<b>Application</b>
<b>SBR</b>	<ol style="list-style-type: none"> <li>1. Production of HIPS</li> <li>2. Rubber compound for tires</li> <li>3. Floor coverings</li> <li>4. Foot wear</li> <li>5. Children toys</li> <li>6. Rubber hose</li> <li>7. Belt and gold balls</li> </ol>
<b>PBR</b>	<ol style="list-style-type: none"> <li>1. Mechanical goods</li> <li>2. Tires</li> <li>3. Molded and extruded mechanical rubbers</li> <li>4. Foot wear</li> <li>5. Tire sidewalls</li> <li>6. Floor covering</li> <li>7. Children toys</li> <li>8. Cables o Car &amp; Truck tires , Shoe industry</li> </ol>

## Grades and Producers

### HDPE Film

<b>MFI</b>	<b>· c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
0.05	190/2.16	0.952
10	190/21.6	0.951
8	190/21.16	0.949

### HDPE Pipe

<b>MFI</b>	<b>· c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
6	190/21.6	0.944
6.2	190/21.6	0.948
6.2	190/21.6	0.948
6.2	190/21.6	0.957
6	190/21.6	0.944

### HDPE Blow Molding

<b>MFI</b>	<b>· c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
23	190/21.6	0.954
9.5	190/21.6	0.951
0.28-0.43	190/21.6	0.954
23	190/21.6	0.955
22	190/21.6	0.950
5.6	190/21.6	0.947
6.5	190/21.6	0.942
10	190/21.6	0.955

### HDPE Caps & Closures

<b>MFI</b>	<b>· c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
3.1	190/2.16	0.951
2	190/2.16	0.952

### HDPE Yarn

<b>MFI</b>	<b>· c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
0.8	190 c/2.16	0.954

## LDPE

<b>Application</b>	<b>MFI</b>	<b>· c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
Film	4.7	190/2.16	0.920
Film	1.9	190/2.16	0.921
Film	2.5	190/2.16	0.921
Film	0.3	190/2.16	0.921
Film	0.85	190/2.16	0.921
Film	0.85	190/2.16	0.921
Film	0.75	190/2.16	0.925
Injection Molding	22	190/2.16	0.010
Injection Molding	0.85	190/2.16	0.919-0.922
Cast Film/ Blown Film	1.9	190/2.16	0.924
Blown Film/Injection Molding/ Extrusion Blow Molding	0.25	190/2.16	0.923
Blown Film/Injection Molding/ Extrusion Blow Molding	0.75	190/2.16	0.923
Cast Film/ Blown Film	0.04	190/2.16	0.924
Injection Molding	1.2	190/2.16	0.920

### LLDPE

<b>MFI</b>	<b>• c / Kg</b>	<b>Density</b>
0.9	190/2.16	0.920
0.9	190/2.16	0.921
0.8-1.2	190/2.16	0.920-0.924
0.8-1.2	190/2.16	0.920-0.924
2.8-3.2	190/2.16	0.920-0.924
2.2	190/2.16	0.920

### PP Homopolymer

<b>MFI</b>	<b>• c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
3.2	230/2.16	0.9
25	230/2.16	0.9
1.8	230/2.16	0.9
6	230/2.16	0.9

### PP copolymer

<b>MFI</b>	<b>· c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
21	230/2.16	0.9
1.3	230/2.16	0.9
0.6	230/2.16	0.9

### PP Pipe

<b>MFI</b>	<b>· c / Kg</b>	<b>Density (g/cm<sup>3</sup>)</b>
1.05	230 c/2.16	0.954

### PVC Emulsion

<b>K-Value</b>	<b>Density</b>
67 -69	6 >=

### PVC Suspension

<b>K- value</b>	<b>Viscosity</b>
64 - 66	101-109
64 - 66	101 - 109
69-71	0.98 - 1.02
56 - 58	0.67 - .072
59 - 61	0.74 - 0.79

### PS GPPS

<b>MFI</b>	<b>• c / Kg</b>	<b>Vicat softening</b>
10	200/5	98
4	200/5	104
2.5	200/200	105
11	200/200	91
7	200/5	100
5.5	200/5	100
4.2	200/5	100
14	200/5	92
3.1	200/5	90
3-5	200/5	1.04
9-13	200/5	1.06

### PS HIPS

<b>MFI</b>	<b>• c / Kg</b>	<b>Vicat softening</b>
4.5	200/5	97
4.4	200/5	92
16	200/5	85
12	200/5	93

### PS EPS

<b>Bead Size (mm)</b>	<b>Density (g/cm<sup>3</sup>)</b>
1.8-2.5	13-15
0.7-1	18-30
1.4-2	11-12
0.5-0.8	16-18
1.2-1.8	7-12
0.9- 1.3	13-20
0.7-0.9	14-20
1.6-1.9	11
0.3-0.47	17

### BR PBR

<b>Viscosity</b>	<b>Oil content</b>
40-50	Max 0.3

### BR SBR

<b>Viscosity</b>	<b>Oil content</b>	<b>Bounded Styrene</b>
46-58	< 1	22.5-24.5
42-52	< 1	22.5-24.5
46-58	<1.5	22.5-24.5